

EasyDriver v4.2

www.schmalzhaus.com/EasyDriver

An easy to use bipolar stepper motor driver
 Use 4 wire, 6 wire or 8 wire stepper motors
 From about 150mA/phase to about 750mA/phase
 Defaults to 5V for Ucc (logic supply), settable to 3.3V
 Supply 8V to 30V DC power input on JP1
 Do not connect or disconnect motor while EasyDriver is powered

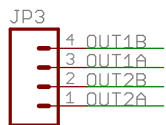
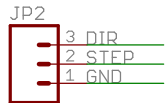
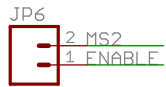
TP1 - VREF input to driver
 Monitor this test point with meter as you adjust current adj pot
 Valid range 1.0V to Ucc
 At VREF of 5V max current will be 833mA
 At VREF of 3.3V max current will be 550mA
 At VREF of 1V max current will be 166mA
 Minimum current gives smoothest microsteps
 Maximum current gives highest torque

DEFAULT OPTIONS
 Short JP5, JP6, JP7 pins to GND or Ucc to override

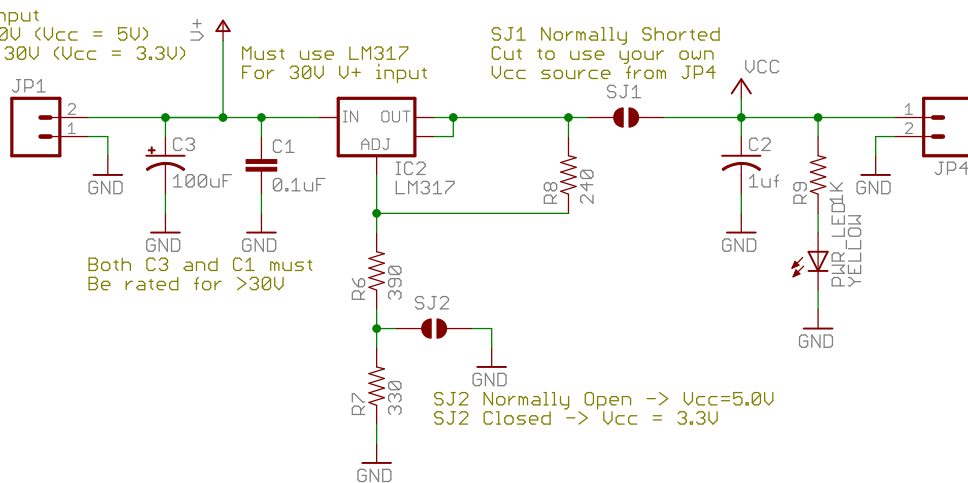
SLEEP = Ucc (awake)
 MS1 = Ucc (1/8 microstep)
 MS2 = Ucc (1/8 microstep)
 ENABLE = GND (enabled)
 RESET = Ucc (not reset)
 PFD = Ucc (slow decay mode)

DIR is level sensitive
 A rising edge on STEP causes a step
 Both take 0V to Ucc

Coil 1 of motor across OUT1B and OUT1A
 Coil 2 of motor across OUT2B and OUT2A

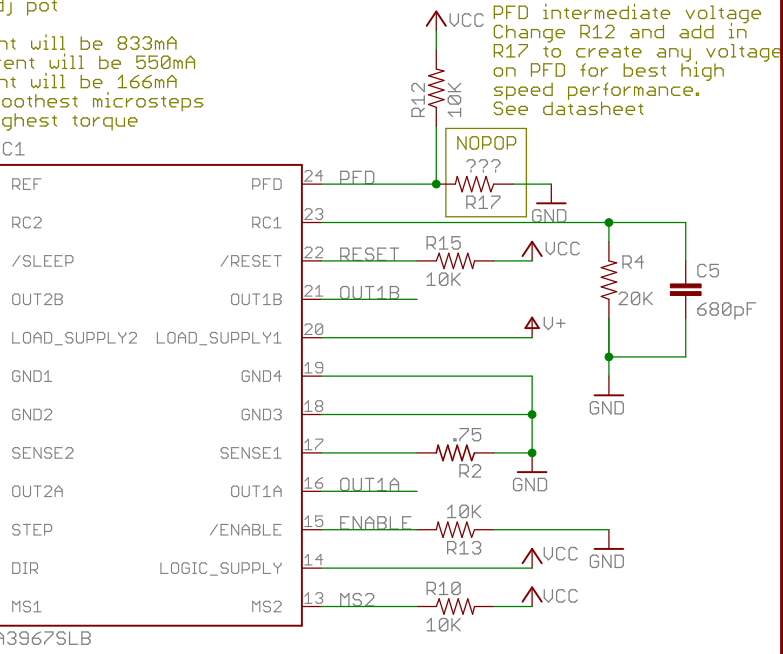


Power Input
 8V to 30V (Ucc = 5V)
 6.3V to 30V (Ucc = 3.3V)



Must use LM317
 For 30V U+ input
 SJ1 Normally Shorted
 Cut to use your own Ucc source from JP4

SJ2 Normally Open -> Ucc=5.0V
 SJ2 Closed -> Ucc = 3.3V



PFD intermediate voltage
 Change R12 and add in R17 to create any voltage on PFD for best high speed performance.
 See datasheet

Ucc output
 Max 70mA used by EasyDriver
 The rest you can use

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